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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,047	04/08/2004	Alex Hill	sensor	3046
23217	7590	05/24/2006	EXAMINER	
GLENN L. WEBB			EDWARDS JR, TIMOTHY	
P.O BOX 951			ART UNIT	
CONIFER, CO 80433			PAPER NUMBER	
			2612	

DATE MAILED: 05/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/709,047

Applicant(s)

HILL, ALEX

Examiner

Timothy Edwards, Jr.

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,12 are rejected under 35 U.S.C. 102(b) as being anticipated by
Rekimoto et al '672.

Considering claim 1, Rekimoto discloses an information input apparatus comprising, a) at least one infrared transmitter (see col 4, lines 8-15); b) at least one infrared receiver for receiving reflected signal from the transmitter (see col 4, lines 19-22 and lines 28-40); c) the transmitter contained in a first housing (see fig 1, item 3); d) the receiver contained in a second housing (see fig 1, item 4); e) reflected signal coupled to at least one control circuit (see col 4, lines 53-57); f) the control circuit controlling at least one output (see col 4, lines 57-60).

Considering claim 12, the limitations of this claim are interpreted and rejected as stated in claim 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-7,13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rekimoto as applied to claim 1 above, and further in view of Ludenia '652.

Considering claims 2,13 Rekimoto discloses an infrared input system comprising an infrared transmitter, a receiver for receiving a reflected transmitted signal and the receiver communicating the reflected signal to a control circuit. However, Redimoto does not specifically recite intermittently transmitting his signal. Ludenia teaches in paragraphs [0027-0029] intermittent infrared transmitter, a receiver for receiving a reflected transmitted signal and the receiver communicating the reflected signal to a control circuit. One of ordinary skill in the art would readily recognize the transmitting of the infrared signal intermittently would conserve power as taught by Ludenia in paragraph 0029. Therefore, it would have been obvious to one of ordinary skill in art to use the infrared transmission means of Redimoto intermittently as taught by Ludenia because both systems are concern with the transmission of infrared detection signals and the receiving of the reflected signal to control an output of a control circuit. Also, Ludenia teaches transmitting intermittent signals conserves power, thus giving the transmitter longer life.

Considering claims 3,14 Rekimoto discloses the limitation of this claim (see col 7, lines 12-27).

Considering claims 4,15 Rekimoto discloses the limitation of this claim (see col 9, lines 4-14).

Considering claims 5,16 Rekimoto does not specifically recite activating a timing device by the output of the control circuit. One of ordinary skill in the art would readily recognize the output of the control circuit of the Rekimoto system might activate any number of devices to include a timing device. Therefore, it would have been obvious to one of ordinary skill in the art to use the output of the control circuit of the Rekimoto system to activate a timing device because the output of the control circuit of the Rekimoto system might be used activate any number of devices.

Considering claims 6,17 Rekimoto discloses the limitation of this claim (see col 4, lines 53-60).

5. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Zimmerman '085.

Considering claim 7, Zimmerman discloses a proximity detector and switch comprising, a) at least one control circuit controlling at least one output (see col 4, lines 32-36 and col 6, lines 41-47); b) at least one button on the keypad configuration including an LED for illuminating the surface of the button (see col 6, lines 27-31); c) at least one infrared

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receiver for receiving a reflected signal from the transmitter (see col 3, line 67 to col 4, line 6); d) infrared transmitter contained in a first housing (see fig 1B, items 6); e) the receiver contained in a second housing (see fig 1B, items 13 and 16); f) the receiver receiving a reflected signal from the infrared transmitter (see col 6, lines 5-11); g) receiving mechanism coupled to at least one control circuit (see col 5, lines 25-36); h) the illumination mechanism illuminating the button upon receiving a reflected signal from the transmitter (see col 6, lines 27-31 and col 9, lines 52-56).

6. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman as applied to claim 7 above, and further in view of Ludenia '652.

Considering claim 8, Zimmerman discloses an infrared input system comprising an infrared transmitter, a receiver for receiving a reflected transmitted signal and the receiver communicating the reflected signal to a control circuit. Zimmerman does not specifically recite intermittently transmitting his signal. Ludenia teaches in paragraphs [0027-0029] intermittent infrared transmitter, a receiver for receiving a reflected transmitted signal and the receiver communicating the reflected signal to a control circuit. Obviousness is as stated in claim 2.

Considering claim 9, Zimmerman discloses the limitation of this claim (see col 2, line 67 to col 3, line 2).

Considering claim 10, Zimmerman does not specifically recite activating a timing device by the output of the control circuit. One of ordinary skill in the art would readily recognize the output of the control circuit of the Zimmerman system might activate any number of devices to include a timing device. Therefore, it would have been obvious to one of ordinary skill in the art to use the output of the control circuit of the Zimmerman system to activate a timing device because the output of the control circuit of the Zimmerman system might be used activate any number of devices.

Considering claim 11, Zimmerman discloses the limitation of this claim (see col 5, lines 1-17).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Du et al '938, Lester et al '180, Okamoto et al '078, and Mantyjarvi et al '231 disclose the use of an infrared transmitter/receiver and a control unit.

Any inquiry concerning this communication should be directed to Examiner Timothy Edwards, Jr. at telephone number (571) 272-3067. The examiner can normally be reached on Monday-Thursday, 8:00 a.m.-6:00 p.m. The examiner cannot be reached on Fridays.

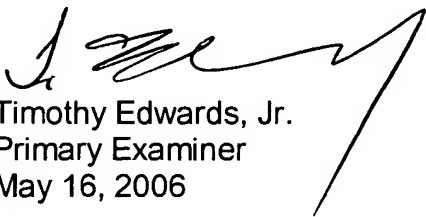
If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached at (571) 272-7308.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-4700, Mon-Fri., 8:30 a.m.-5:00 p.m.

Any response to this action should be fax to:

(571) 273-8300 (for formal communications intended for entry).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov> or contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy Edwards, Jr.
Primary Examiner
May 16, 2006